IN THE CLAIMS:

Please amend claims 18, 21 and 29, cancel claims 19, 20, 26-28, 30-35 and add new claims 36-47 as follows.

1 - 17. (Cancelled)

18. (Currently Amended) An installation for the heat-treatment of parts comprising:

a rotary hearth furnace adapted to be rotated in a timed manner and comprising outer and inner walls for limiting a furnace chamber,

said furnace chamber having vertically movable doors adapted to divide up said furnace chamber into a heating zone and at least one treatment zone;

a first opening provided in said outer wall for charging said heating zone,

first means for closing said first opening,

a charging sluice disposed adjacent said first opening;

a second opening provided in said outer wall for discharging from a downstream treatment zone,

second means for closing said second opening,

said installation further comprising:

transport means for transporting said parts into and out of the hearth furnace, quenching bath means for quenching said parts after treatment in said rotary hearth furnace; and,

sluice means arranged to connect said second opening and said quenching bath means, wherein said sluice means and said charging sluice have at least one sluice door, each sluice door being disposed at about a right angle to the associated opening in said outer wall.

19-20. (Cancelled)

21. (Currently Amended) The installation of claim 18 wherein the ~~two~~ first and

second openings for charging and discharging are disposed at a circumferential distance of ~~substantially~~ about 45° from each other.

22. (Previously Presented) The installation as claimed in claim 18 wherein the first opening and the second opening are both provided as charging and discharging openings.

23. (Previously Presented) The installation as claimed in claim 18, wherein the first opening for charging is disposed vertically above the furnace chamber and is coupled to a charging sluice disposed vertically above the furnace chamber and designed as an elevator sluice.

24. (Previously Presented) The installation as claimed in claim 18, wherein a second quenching means is connected to the rotary hearth furnace by means of said sluice means.

25. (Previously Presented) The installation as claimed in claim 24, wherein the second quenching means is selected from the group consisting of a quenching bath and a gas quenching chamber.

26-28. (Cancelled)

29. (Currently Amended) The installation as claimed in claim ~~28~~ 18, wherein all doors are individually controllable.

30-35. (Cancelled)

36. (New) An installation for the heat-treatment of parts, comprising:

a rotary hearth furnace including a rotary hearth which can be rotated in a timed manner in one of a clockwise and a counter-clockwise direction, the furnace including an outer wall and an inner wall defining a furnace chamber;

a plurality of vertically movable doors dividing up the furnace chamber into a heating zone and at least one treatment zone;

a first closable opening for charging and discharging the furnace, the first closable opening disposed in the outer wall of the furnace chamber;

a second closable opening for charging and discharging the furnace, the second closable opening disposed in the outer wall of the furnace chamber, wherein each of the first and the second closable openings are located adjacent to the vertically movable doors defining the heating zone;

a first quenching device in selective communication with the first closable opening;

a second quenching device in selective communication with the second closable opening;

a sluice arranged to connect the second closable opening and the second quenching device; and

a plurality of transport devices for transporting the parts into or out of the rotary hearth furnace.

37. (New) The installation of claim 36, wherein the first closable opening is adjoined on both sides by the vertically movable doors so that a charging and discharging zone is formed.

38. (New) The installation of claim 36, wherein the vertically movable doors divide the furnace chamber into three treatment zone, including a carburizing zone and two diffusion/carburizing zones which adjoin the carburizing zone and the heating zone.

39. (New) The installation of claim 38, wherein different treatment temperatures and different atmospheres can be set in the two diffusion/carburizing zones.

40. (New) The installation of claim 36, wherein the heating zone extends over a circumferential distance of about 90° between the first and second closable openings.

41. (New) The installation of claim 36, wherein the second quenching device

is a cooling bath.

42. (New) The installation of claim 41, wherein the cooling bath is an oil bath.

43. (New) A rotary hearth furnace for the heat-treatment of parts, comprising:

a rotary furnace adapted to be rotated in a timed manner either clockwise or counter-clockwise, the furnace including a ring-shaped furnace chamber comprising an outer wall and an inner wall;

a plurality of vertically movable doors dividing up the furnace chamber into a heating zone and at least one treatment zone;

a first closable opening for charging and discharging disposed in the outer wall of the furnace chamber;

a second closable opening for charging and discharging disposed in the outer wall of the furnace chamber;

wherein the first and the second closable openings are located adjacent to the vertically movable doors defining the heating zone.

44. (New) The rotary hearth furnace of claim 43, wherein the first closable opening is adjoined on both sides by the vertically movable doors so that a charging and discharging zone is formed.

45. (New) The rotary hearth furnace of claim 43, wherein the vertically movable doors divide the furnace chamber into three treatment zones, a carburizing zone and two diffusion/carburizing zones which adjoin the carburizing zone and the heating zone.

46. (New) The rotary hearth furnace of claim 43, wherein different treatment temperatures and different atmospheres can be set in the diffusion/carburizing zones.

47. (New) The rotary hearth furnace of claim 43, wherein the heating zone extends over a circumferential distance of about 90° between the two closable openings for charging and discharging.